

WHAT IS CLAIMED IS:

1. A curable powder coating composition comprising:
  - (a) a compound that comprises the reaction product of a polyol having at least one hydroxyl group and a lactone, wherein the polyol comprises an acrylic polyol or a siloxane polyol;
  - (b) a film-forming resin; and
  - (c) a crosslinker.
2. The composition of Claim 1, wherein the polyol comprises acrylic polyol.
3. The composition of Claim 2, wherein the acrylic polyol has a weight average molecular weight of 500 to 200,000.
4. The composition of Claim 3, wherein the acrylic polyol has a weight average molecular weight of 12,000 to 50,000.
5. The composition of Claim 2, wherein 1 to 100 percent of the hydroxyl functional groups on the acrylic polyol have a lactone grafted thereto.
6. The composition of Claim 5, wherein greater than 90 percent of the hydroxyl functional groups on the acrylic polyol have a lactone grafted thereto.
7. The composition of Claim 2, wherein the reaction product of the acrylic polyol and the lactone has a weight average molecular weight of 1,000 to 500,000.
8. The composition of Claim 7, wherein the reaction product of the acrylic polyol and the lactone has a weight average molecular weight of 25,000 to 250,000.

9. The composition of Claim 2, wherein the lactone comprises epsilon-caprolactone.

10. The composition of Claim 2, wherein the reaction product of the acrylic polyol and the lactone comprises lactone chains comprising 1 to 50 lactone derived units.

11. The composition of Claim 2, wherein the film-forming resin is hydroxy functional.

12. The composition of Claim 11, wherein the film-forming resin comprises polyester.

13. The composition of Claim 2, wherein the film-forming resin is present in an amount of 50 weight percent or greater, based on total weight of the composition.

14. The composition of Claim 13, wherein the reaction product of the acrylic polyol and the lactone is present in an amount of 0.1 to 20 weight percent.

15. The composition of Claim 14, wherein the reaction product of the acrylic polyol and the lactone is present in an amount of 0.1 to less than 10 weight percent.

16. The compound of Claim 2, wherein the acrylic polyol comprises hydroxyethyl methacrylate, methyl methacrylate, and/or ethyl acrylate.

17. The composition of Claim 1, wherein the polyol comprises siloxane polyol.

18. The composition of Claim 17, wherein the siloxane polyol has a number average molecular weight of 500 to 5000.

19. The composition of Claim 18, wherein the siloxane polyol has a number average molecular weight of 750 to 3000.
20. The composition of Claim 17, wherein 1 to 100 percent of the hydroxyl functional groups on the siloxane polyol have a lactone grafted thereto.
21. The composition of Claim 17, wherein greater than 90 percent of the hydroxyl functional groups on the siloxane polyol have a lactone grafted thereto.
22. The composition of Claim 17, wherein the reaction product of the siloxane polyol and the lactone has a weight average molecular weight of 1,000 to 500,000.
23. The composition of Claim 22, wherein the reaction product of the siloxane polyol and the lactone has a weight average molecular weight of 20,000 to 140,000.
24. The composition of Claim 17, wherein the lactone comprises epsilon-caprolactone.
25. The composition of Claim 17, wherein the reaction product of the siloxane polyol and the lactone comprises lactone chains comprising 1 to 50 lactone derived units.
26. The composition of Claim 17, wherein the film-forming resin is hydroxy functional.
27. The composition of Claim 26, wherein the film-forming resin comprises polyester.

28. The composition of Claim 2, wherein the film-forming resin is present in an amount of 50 weight percent or greater, based on total weight of the composition.

29. The composition of Claim 13, wherein the reaction product of the siloxane polyol and the lactone is present in an amount of 0.1 to 20 weight percent.

30. The composition of Claim 14, wherein the reaction product of the siloxane polyol and the lactone is present in an amount of 0.1 to less than 10 weight percent.